

# Component Documentation

A smart notification badge component for displaying counts, status indicators, and priority levels. Features intelligent number formatting (9+, 99+, 999+), multiple size variants including dots, semantic color states, and comprehensive accessibility support for enhanced user communication.

## How to use

### Basic Usage

Simple badge implementations with counts and basic styling.

```

<aava-badges
  [count]="5"
  [state]="'neutral'"
  [size]="'md'"
  (click)="onBadgeClick($event)"
  (keydown.enter)="onBadgeKeyPress($event)"
  (keydown.space)="onBadgeKeyPress($event)"
  tabindex="0"
  role="button"
  aria-label="Badge with count 5"
>
</aava-badges>

<aava-badges
  [count]="3"
  [state]="'high-priority'"
  [size]="'md'"
  (click)="onBadgeClick($event)"
  (keydown.enter)="onBadgeKeyPress($event)"
  (keydown.space)="onBadgeKeyPress($event)"
  tabindex="0"
  role="button"
  aria-label="Badge with count 3"
>
</aava-badges>

<aava-badges
  [count]="12"
  [state]="'low-priority'"
  [size]="'md'"
  (click)="onBadgeClick($event)"
  (keydown.enter)="onBadgeKeyPress($event)"
  (keydown.space)="onBadgeKeyPress($event)"
  tabindex="0"
  role="button"
  aria-label="Badge with count 12"
>
</aava-badges>

<aava-badges
  [count]="8"
  [state]="'information'"
  [size]="'md'"
  (click)="onBadgeClick($event)"
  (keydown.enter)="onBadgeKeyPress($event)"
  (keydown.space)="onBadgeKeyPress($event)"
  tabindex="0"
  role="button"
  aria-label="Badge with count 8"
>
</aava-badges>

---

onBadgeClick(event: Event): void {
  console.log('Badge clicked:', event);
}

onBadgeKeyPress(event: Event): void {
  console.log('Badge key pressed:', event);
}

```

```
}
```

## Sizes

Four size variants to fit different interface requirements and visual hierarchy.

```
<aava-badges
  [count]="1"
  [state]=" 'high-priority' "
  [size]=" 'xs' "
  (click)="onBadgeClick($event)"
  tabindex="0"
  role="button"
  aria-label="Badge with count 1 and xs size"
>
</aava-badges>

<aava-badges
  [count]="5"
  [state]=" 'medium-priority' "
  [size]=" 'sm' "
  (click)="onBadgeClick($event)"
  tabindex="0"
  role="button"
  aria-label="Badge with count 5 and sm size"
>
</aava-badges>

<aava-badges
  [count]="15"
  [state]=" 'low-priority' "
  [size]=" 'md' "
  (click)="onBadgeClick($event)"
  tabindex="0"
  role="button"
  aria-label="Badge with count 15 and md size"
>
</aava-badges>

<aava-badges
  [count]="99"
  [state]=" 'information' "
  [size]=" 'lg' "
  (click)="onBadgeClick($event)"
  tabindex="0"
  role="button"
  aria-label="Badge with count 99 and lg size"
>
</aava-badges>

---

onBadgeClick(event: Event): void {
  console.log('Badge clicked:', event);
}
```

## Available Sizes

- xs (Extra Small) - Minimal size for very dense interfaces and subtle indicators
- sm (Small) - Compact for dense interfaces and subtle indicators
- md (Medium) - Standard size for most use cases (default)
- lg (Large) - Prominent for important notifications and better accessibility

## Variants

Three variant types to serve different use cases.

```
<div class="badge-row">
  <aava-badges state="high-priority" size="lg" [count]="9"></aava-badges>
  <aava-badges state="high-priority" size="md" [count]="9"></aava-badges>
  <aava-badges state="high-priority" size="sm" [count]="9"></aava-badges>
  <aava-badges state="high-priority" size="xs" [count]="9"></aava-badges>
</div>

<div class="badge-row">
  <aava-badges
    state="medium-priority"
    size="lg"
    iconName="clock"
    iconColor="white"
    [iconSize]="14"
  ></aava-badges>
  <aava-badges
    state="medium-priority"
    size="md"
    iconName="clock"
    iconColor="white"
    [iconSize]="12"
  ></aava-badges>
  <aava-badges
    state="medium-priority"
    size="sm"
    iconName="clock"
    iconColor="white"
    [iconSize]="10"
  ></aava-badges>
  <aava-badges
    state="medium-priority"
    size="xs"
    iconName="clock"
    iconColor="white"
    [iconSize]="8"
  ></aava-badges>
</div>

<div class="badge-row">
  <aava-badges state="low-priority" size="lg" variant="dots"></aava-badges>
  <aava-badges state="low-priority" size="md" variant="dots"></aava-badges>
  <aava-badges state="low-priority" size="sm" variant="dots"></aava-badges>
</div>
</div>
```

## Available Variants

- Default
- Icon

- Dots

## Accessibility

Built-in accessibility features ensuring inclusive user experience.

### Accessibility Features

- Keyboard Navigation : Tab navigation and keyboard activation
- Screen Reader Support : Semantic HTML and ARIA attributes
- Focus Indicators : Clear visual focus states for navigation
- Color Independence : Information conveyed beyond color alone
- High Contrast : Enhanced visibility in high contrast modes
- Descriptive Content : Meaningful count and status information

## API Reference

### Inputs

Property	Type	Default	Description
state	'high-priority'   'medium-priority'   'low-priority'   'neutral'   'information'   'online'   'offline'	'neutral'	Semantic state determining badge color
size	'lg'   'md'   'sm'   'xs'	'md'	Size variant of the badge
variant	'default'   'dots'	'default'	Visual variant of the badge
count	number	undefined	Number to display (smart formatting applied)
iconName	string	undefined	Name of icon to display (from ava-icon)
iconColor	string	'white'	Custom color for the icon
iconSize	number	undefined	Size of the icon in pixels
customStyles	Record		

### Properties

Property	Type	Description
displayCount	string	Formatted count string (includes 9+, 99+, etc.)
badgeClasses	string	Computed CSS classes for badge styling
hasContent	boolean	Whether badge has count or icon content
isDots	boolean	Whether badge is dots variant
isSingleDigit	boolean	Whether count is a single digit (0-9)

## Methods

Method	Parameters	Return Type	Description
onKeyPress()	-	void	Handle keyboard interaction (Enter/Space)

## CSS Custom Properties

Property	Description
--badge-font	Font for badge text
--badge-weight	Font weight for badge text
--badge-line-height	Line height for badge text
--badge-border-radius	Border radius for badge
--badge-padding	Padding inside badge
--badge-display	CSS display property for badge
--badge-align-items	Vertical alignment of badge content
--badge-justify-content	Horizontal alignment of badge content
--badge-gap	Gap between badge elements
--badge-default-background	Background color for neutral state
--badge-default-text	Text color for neutral state
--badge-default-border	Border for neutral state
--badge-primary-background	Background color for primary state
--badge-primary-text	Text color for primary state
--badge-primary-border	Border for primary state

Property	Description
--badge-secondary-background	Background color for secondary state
--badge-secondary-text	Text color for secondary state
--badge-secondary-border	Border for secondary state
--badge-success-background	Background color for success state
--badge-success-text	Text color for success state
--badge-success-border	Border for success state
--badge-warning-background	Background color for warning state
--badge-warning-text	Text color for warning state
--badge-warning-border	Border for warning state
--badge-error-background	Background color for error state
--badge-error-text	Text color for error state
--badge-error-border	Border for error state
--badge-info-background	Background color for information state
--badge-info-text	Text color for information state
--badge-info-border	Border for information state
--badge-online-background	Background color for online state
--badge-offline-background	Background color for offline state
--badge-size-xs-min-width	Minimum width for extra small badge
--badge-size-xs-height	Height for extra small badge
--badge-size-sm-font	Font for small badge
--badge-size-sm-padding	Padding for small badge
--badge-size-sm-min-width	Minimum width for small badge
--badge-size-sm-height	Height for small badge
--badge-size-md-font	Font for medium badge
--badge-size-md-padding	Padding for medium badge
--badge-size-md-min-width	Minimum width for medium badge
--badge-size-md-height	Height for medium badge
--badge-size-lg-font	Font for large badge
--badge-size-lg-padding	Padding for large badge
--badge-size-lg-min-width	Minimum width for large badge
--badge-size-lg-height	Height for large badge

Property	Description
--badge-solid-background	Background color for solid variant
--badge-solid-text	Text color for solid variant
--badge-solid-border	Border for solid variant
--badge-outline-background	Background color for outline variant
--badge-outline-text	Text color for outline variant
--badge-outline-border	Border for outline variant
--badge-ghost-background	Background color for ghost variant
--badge-ghost-text	Text color for ghost variant
--badge-ghost-border	Border for ghost variant
--badge-dot-size	Size of dot indicator
--badge-dot-border-radius	Border radius for dot (circle)
--badge-dot-margin-right	Margin right for dot
--badge-icon-size	Default size for icons
--badge-icon-color	Default icon color
--badge-icon-margin-right	Margin right for icons
--badge-counter-background	Background color for counter badges
--badge-counter-text	Text color for counter badges
--badge-counter-font	Font for counter badges
--badge-counter-min-width	Minimum width for counter badges
--badge-counter-height	Height for counter badges
--badge-counter-border-radius	Border radius for counter badges
--badge-counter-padding	Padding for counter badges
--badge-font-family	Font family for badge text

## Best Practices

### Design Guidelines

- Use high-priority for urgent notifications requiring immediate attention
- Choose appropriate sizes based on interface density and importance
- Prefer neutral state for simple count displays
- Use dots variant for minimal status indicators without text
- Use icons for status indicators rather than counts
- Consider badge placement to avoid blocking important content



## Accessibility

- Ensure badges convey information beyond color alone
- Provide meaningful text content for screen readers
- Use appropriate state colors that meet contrast requirements
- Test keyboard navigation thoroughly
- Consider announcing dynamic count changes to screen readers

## Performance

- Avoid frequent count updates that trigger excessive re-renders
- Use OnPush change detection strategy for optimal performance
- Consider debouncing rapid count changes
- Cache computed properties for better performance

## Technical Notes

### Automatic Expansion

The badge automatically expands its width when displaying multi-character content (like "99+" or "999+") while maintaining circular dimensions for single characters.

### Icon vs Count Priority

When both iconName and count are provided, the count takes priority and the icon is not displayed. Use separate badges for icon + count combinations.

### Dots Variant

The dots variant creates simple circular indicators without text content. It's ideal for status indicators, online/offline states, or any minimal visual cue that doesn't require text.

### Keyboard Interaction

Badges with tabIndex="0" can receive keyboard focus and respond to Enter and Space key presses for custom interactions.

### Component Selector

The component uses the selector ava-badges (plural) for consistency with the component library naming convention.